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CAN THE ARMY BECOME A *Learning Organization?*

A QUESTION REEXAMINED

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In 1994, after serving as an organizational consultant for General Gordon Sullivan, then–U.S. Army Chief of Staff, Margaret Wheatley wrote an article about the U.S. Army becoming a learning organization. Wheatley, a new-age social scientist and author of *Leadership and the New Science*, had been solicited by Sullivan to see how the Army could benefit from the buzz about learning organizations that was then sweeping corporate America. It has been 15 years since that writing, during which time there has been a great deal of research on learning organizations. This article revisits the title of Wheatley's essay in light of recent research and military experience.¹ In doing so, it lays out an integrated approach for building learning capability in any organizational setting, large or small, military or otherwise.

Over the years, the U.S. military has won more wars than it has lost, but has had to do so with changing tactics in the context of changing circumstances, be they political, economic, or social-cultural. For some time, it has been recognized that the Army is apt to face a growing diversity and number of missions, and it was that sense of urgency in

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the 1990s that prompted General Sullivan to focus on the Service's need to learn. The latest admonition for this requirement appears in the preface to the Army/Marine Corps counterinsurgency manual.² It reaffirms the need to change and adapt as a perennial requirement of our military, a thesis reflected in this statement from General David Petraeus:

*We've been reminded through hard experience that it's imperative to continue to learn and adapt . . . to identify and share lessons learned and best practices; and to strive to ensure that our units are learning organizations. What works today may not work tomorrow, we must remain alert to that reality.*³

In citing Wheatley back in 1994, Sullivan claimed that the Army already was a learning organization.⁴ If that was indeed the case, why was it so slow to respond to the Iraqi insurgency, and why Petraeus's recent reaffirmation? One explanation may be that Sullivan's focus was force structure, while Petraeus's concern has been strategy and tactics. It is one thing to have a nimble and more easily deployable force, but it is another to have a force whose approach to combat is improvisational. Another explanation may be a lack of understanding about the Army's learning capabilities.

A Matter of Perspective

It is difficult to know what Generals Sullivan and Petraeus know about learning organizations. However, it is clear that they are big advocates of them. The learning organization concept was popularized by Peter Senge, who described it, in part, as a "place where people continually expand their capacity to create the results they truly desire."⁵ Unfortunately, with popularity came pretentiousness and vulgarity and efforts by many scholars and practitioners to redefine the concept or reconceptualize it altogether. For some, Senge's definition sounded too grandiose or Pollyannaish and thus was not taken seriously. Others offered definitions and methodologies to make the concept actionable. For example, David Garvin defined a *learning organization* as one "skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights."⁶ Even more simply, Peter Kline and Bernard Saunders defined a learning organization as "a viable and vital means for developing a culture of high performance learners."⁷



GEN Petraeus recognizes importance of ongoing learning and adaptation

U.S. Navy (William Selby)

As the number of definitions of the learning organization grew, several clear themes emerged. Among them was the distinction and interdependence of individual level learning and organizational learning, and that one could not exist without the other. Another theme was that learning is linked to adaptation, whether to external events or knowledge gained internally through experience. One point of commonality was the *necessity* for organizations to learn. That sense of urgency was first characterized by Arie de Geus, who claimed that the only sustainable way to stay ahead of one's competitors was to learn faster than they did.⁸ In essence, that concept underlies General Petraeus's approach to counterinsurgency.⁹ One must be as flexible and adaptive as one's foes, if not more.

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Over time, practitioner focus has shifted from definitions to techniques and methodologies, and three approaches or perspectives have emerged: normative, developmental, and capability.¹⁰ Within the normative school, learning organizations are viewed as a particular type of organization characterized by a specific set of internal conditions.

Learning does not occur spontaneously or naturally since organizations resist change and invest in activities that have immediate impact rather than those whose impact is uncertain or long-term. However, with deliberate effort, leaders and managers can and should build learning organizations.¹¹

In the developmental perspective, learning organizations *can* be realized through the strategic actions of their leaders but only through a progression of stages, whether by evolutionary or revolutionary means.¹² In effect, learning organizations develop as a function of their own lifecycles such that learning styles vary over time. Typically, the learning characteristics of a startup will differ from those of a well-established organization operating in a more stable environment. For example, the creation of U.S. Africa Command as an entirely new structural entity within the Department of Defense provides new possibilities for learning compared to those in existing combatant commands.

Both the normative and developmental perspectives focus on the problems and difficulties in promoting learning in organizations. When organizations fail to establish the necessary conditions, they suffer from learning disabilities. These disabilities occur due to the fundamental ways in which individuals have been trained to think and act and from barriers to discovering and utilizing solutions to organizational problems.¹³ Organizations

fail to learn because it is difficult, if not impossible, to see the long-term consequences of their actions and decisions due to time lags. Learning is avoided when leaders attribute failure not to internal causes but to conditions in the external environment or to factors that cannot be controlled. Organizations may suffer from amnesia (lack of organizational memory), superstition (biased interpretation of experience), paralysis (inability to act), and schizophrenia (lack of coordination among organizational constituencies).¹⁴

Rather than focusing on why learning is problematic for organizations, another approach considers how learning is innate to organizations. In this third perspective (capability), the concept of a learning organization is as redundant as the notion of a breathing mammal. The focus is not on becoming a learning organization but on learning processes that already exist. Learning processes are embedded in organizational culture and structure, both formal and informal, and there is no one best way for organizations to learn.

From this perspective, the question by Wheatley is misleading, if not outright nonsensical. More appropriate questions would be: How does the Army learn and why? What does it learn? And how is that learning aligned with its mission and strategy? The balance of this article presents a methodology for addressing these questions using an approach that integrates insights from each of the three perspectives.

An Integrated Approach

The first step in developing the Army as a learning system is to recognize its profile of current learning capability. The second is to specify a profile that is more aligned with its strategic objectives. The third is the formulation of a change management plan to bridge any gaps. This approach incorporates the capability perspective that the Army has a culture, and embedded within that culture is a patterned set of processes that promote learning. Of course, it could be suggested that the Army is not simply a single culture but a series of subcultures (for example, intelligence, artillery, armor), and learning varies between different functional units. Consequently, one can view the Army as having a portfolio of learning practices.

Existing learning patterns reflect learning styles, and these may be developed over time. Normative factors set the

conditions for learning to occur. A strictly normative approach would only focus on normative factors. In fact, that is exactly

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the approach taken in an assessment of the Army War College that utilized Senge's normative model.¹⁵

Research has validated an integrated framework that can be used to assess or profile overall learning capability.¹⁶ It consists of a set of 17 elements, 7 descriptive learning orientations, and 10 normative facilitating factors. This model has been tested and used in a variety of contexts and is depicted simply in figure 1.

Learning Orientations

Learning Orientations (LOs) represent the ways learning takes place and the nature of what is learned. These orientations reflect patterns that shape an organization's learning capability. Each LO is a bipolar continuous

dimension with no judgment made as to correct position along each continuum. Different organizations will exhibit different orientations, and the combination of positions on all seven LOs reflects learning styles. Figure 2 shows the set of seven LOs that in aggregate depict the critical dimensions of learning capability.

Organizations gain knowledge directly through the experiences of their own personnel and indirectly through the experiences of other organizations. These contrasting approaches are captured by the first LO, *Knowledge Source*: one approach reflects internal sources, the other external ones. The Center for Army Lessons Learned is a repository of insights gained from after-action reviews. Its focus is internal in that the lessons are from the United States rather than foreign militaries. On the other hand, the United States has learned about counterinsurgency from the British, who represent an external source.

The second LO, *Content-process Focus*, refers to the preference for knowledge related to the nature of what the organization does as opposed to knowledge about the processes

Figure 1. Two Parts of Organizational Learning Capability



Figure 2. Learning Orientations

LEARNING ORIENTATIONS	
Name	Approach
Knowledge Source	internal » external
Content-process Focus	content » process
Knowledge Reserve	personal » public
Dissemination Mode	formal » informal
Learning Scope	incremental » transformative
Value-chain Focus	design/make » market/deliver
Learning Focus	individual » group

whereby its mission is accomplished. The Army, much like the rest of American society, is action oriented. That translates into an orientation toward knowing what needs to be done (content or mission focus) and doing it rather than reflecting on how to do it (process focus).

Where does the knowledge within the Army reside? Is it in the heads of its officers or in written-down policies and procedures? The third LOR, *Knowledge Reserve*, reflects these preferences and patterns. If an officer wanted to access, for example, what the Army has learned about special tactics, would he look up the rules of engagement in Army Knowledge Online or phone a fellow West Point graduate now serving in special operations? The answer to that question would point toward the Army's dominant orientation.

Quite separate from the location of an organization's knowledge is the means whereby that knowledge is accessed and disseminated. This characteristic is captured by the fourth LOR, *Dissemination Mode*. The publication of this article in a journal represents formal dissemination of knowledge. On the other hand, serendipitous meetings and conversations in officers' clubs throughout the world are an informal mode of disseminating knowledge.

One common issue in the literature on organizational learning is the distinction between single- and double-loop learning.¹⁷ The contrast pertains to knowledge about improving what one is already doing based on a given set of assumptions versus examining and altering the assumptions underlying one's actions. The former leads to revising tools or techniques, while the latter leads to entirely new ways of thinking due to a change in mindset. The fifth LOR, *Learning Scope*, captures these distinct approaches.

Incremental improvements can enhance organizational performance, but environmental changes may require more fundamental or transformative change. For example, stabilizing security in Iraq after the fall of Saddam Hussein required that U.S. forces realize how the nature of the conflict had radically changed to asymmetric warfare. That demanded a very different type of knowledge that took some time to propagate because it was so different from what the bulk of our forces have learned to do historically.

Organizations provide their clients, customers, or stakeholders with products or services that are of value to them. The thread that extends from product conceptualization,

design, creation (build, manufacture, and so forth), and delivery has been categorized as the value chain.¹⁸ Each activity, or link in the chain, provides an opportunity to increase value. Organizations can invest in learning at various stages along the chain.

The sixth LOR, *Value-chain Focus*, represents the choices that an organization can make either explicitly or tacitly in terms of its learning priorities. Accepting Samuel Huntington's claim that the military's role is the management of violence, the focus of the Army is clearly delivery rather than design.¹⁹

It is one thing to learn a trade or be trained to perform some technical function; it is quite another to learn to perform that function in the context of a work team. Becoming certified in some professions, such as an airline pilot, engine mechanic, or sonar technician, is apt to require individual learning. However, the successful performance of that skill or function depends on the ability to coordinate one's action with others. That challenge leads to the distinction between individual versus group *Learning Focus*, the last LOR. Prior to deployment, Army troops customarily train and learn together since their roles are interdependent.

Once an organization is profiled in terms of its learning orientations, such data can be used to further understand learning capability. Learning styles are a function of LORs and can be identified by matrixing pairs of LORs. For example, figure 3 shows the matrixing of LOR 1, *Knowledge Source* (internal versus external), with LOR 5, *Learning Scope* (incremental versus transformative). The result is a typology of four different styles: correction, innovation, adaptation, and acquisition.

Every day, Soldiers gain experience in the performance of their duties and responsi-

bilities. That experience (internal Knowledge Source), if processed well, can be an abundant and continuous source of learning. The Army's after-action review process is representative of this form of learning.²⁰ By analyzing its experience, a team or Service branch can correct mistakes and errors and thereby make incremental improvements to actions already designed and implemented (see figure 3, cell 1: correction).

When an organization conducts research to promote completely new ways of working or doing, it rethinks what it does, why, and how. For example, developing the Future Combat System requires new knowledge and new insights into combat. That

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knowledge may be based on different assumptions about tactics and would be transformative in scope (cell 2: innovation).

By studying the experiences of others or collecting data about what is going on in the environment, our military can acquire knowledge from external sources (external Knowledge Source). When that information is combined with what is already known or done, adaptation occurs through incremental change (cell 3: adaptation). For example, as combat troops encounter intelligence about what our foes are doing, they can use that information to redesign or reconfigure strategies or tactics to maintain their usefulness.

Some forms of learning, especially the transformative type, require a major investment in resources, especially money, time, or

Figure 3. Learning Style as Determined by Knowledge Source and Learning Scope

Knowledge Source	INTERNAL	3. adaptation	4. acquisition
	EXTERNAL	1. correction	2. innovation
		INCREMENTAL	TRANSFORMATIVE
		Learning Scope	

personnel. Rather than reinventing the wheel, so to speak, organizations with significant financial resources may find it easier and more efficient to simply go out to the external environment (external Knowledge Source) and purchase the capability they desire (cell 4: acquisition). For example, if a company in the private sector developed a new weapons system, the Army could go out and purchase it. This approach would be much more cost-effective compared to the Army developing the system from scratch.

The template of seven LOrs provides insight into the processes whereby learning occurs in an organization. A complete set of seven data points, one for each LOr, depicts in a descriptive way any organization's learning profile. Such data does not indicate the speed whereby learning is taking place or whether the learning is aligned with the strategy of the organization. However, it does provide a baseline to understand current learning capability and a platform to discuss desired capability, which is promoted by normative elements.

Normative Side: Facilitating Factors

The second major aspect of understanding and developing organizational learning capability relates to the inherent difficulties in changing organizations. Learning is apt to challenge established ways of doing things. Learning also takes resources and attention away from activities that are seen as more productive. Consequently, a great deal of research has been conducted to identify those factors that promote learning or establish conditions in which learning is more apt to occur.

Focusing on this aspect brings us to the normative side of the model. For example, Senge advocates for five disciplines (personal mastery, mental models, shared vision, team learning, systems thinking) that he claims promote learning organizations.²¹ These elements are not disciplines in the academic sense but are five skill areas required for learning to occur. In another learning model, Garvin claims that learning organizations are skilled at systematic problemsolving, experimentation, learning from experience, and transferring knowledge.²² Other lists can be found in the writings of other learning advocates. What they share is an emphasis on prescription—that if certain skills or conditions are not present, learning will not occur.

If there is one common trait of learning organizations, it is that information and knowledge flows freely up, down, and across

the organization. Good news travels fast, and bad news travels faster. One way in which this characteristic has been captured is with the term *Climate of Openness*.²³ It reflects the permeability of boundaries such that knowledge essential to learning is shared, not hoarded or hidden. Through knowledge-sharing, people working together can learn from and with one another. Lessons from experience, successes, and failures can be applied to improve performance. Climate of Openness also reflects the freedom that individuals feel to express their opinions or debate issues that affect the organization's overall effectiveness.

In organizations that lack a Climate of Openness, the organization covers up mistakes, errors, and accidents. Absent learning, organizations replicate the past and fail to improve performance. It would take an empirical study to fully investigate the extent to which Climate of Openness is a characteristic of the Army or any other institution. However, it is possible to consider some key traits that constrain learning in light of military culture.

Climate of Openness has been a focal point of Chris Argyris. He has argued that organizational learning is severely limited by the tendency of people to act defensively and to overlook or hide errors to avoid punishment.²⁴ This tendency is compounded

or error can also be embarrassing and thus socially unacceptable.

Openness to learning suggests a certain amount of humility by acknowledging that one does not know everything. In effect, an active learner may be perceived as a fallible person by appearing to be incomplete. However, in many organizations, showing vulnerability is a sign of lack of confidence and a sure reason to be overlooked at promotion time.

When we know something, we can act on the basis of our knowledge, feel certain that we are doing the correct thing, and project confidence about that. Openness and the search for learning require tolerance of ambiguity. In learning or inquiry mode, a person must cope with some level of uncertainty if only to sense that he is still searching for the correct decision to do the right thing. In general, military culture rewards bravado and the projection of confidence rather than humility and the projection of uncertainty or ambivalence. This value constrains openness.

Finally, in organizations where bad or misunderstood decisions can have disastrous consequences, a high degree of control is placed on the discretionary authority of subordinates. In making clear the distribution of power, so-called command and control organizations such as the military constrain

the need for professionals and those in authority to be right gets in the way of decisions being made based on experience

where individuals are rewarded for the very behaviors or values that prevent learning: remaining in control, maximizing winning and minimizing losing, suppressing negative feelings, and being as rational as possible.²⁵ In effect, the need for professionals and those in authority to be right gets in the way of decisions being made based on experience. Furthermore, Argyris argues that while organizations may espouse the latter, they act on the basis of the former.²⁶

In the military, "truth to power" is an expression that reflects the need for a Soldier or Sailor to be truthful even if some fact or opinion contradicts the view of someone higher up the chain of command. However, what one also finds in any hierarchical organization is a conscious or subconscious tendency to defer to those in authority or positions of command. Beyond avoiding conflict, the pointing out of some mistake

the free flow of data. Information must flow through formal channels up and down the hierarchy. While there are very good reasons why military institutions are run this way, other institutions seem less constrained. In effect, an organization's command structure need not dictate the flow of communication so essential for learning.

Describing learning orientations and discerning facilitating factors is a basic start to determining the learning capability of any organization. What remains unanswered is the application of learning to the realization of the organization's mission or desired outcomes. What should be of interest is not learning per se but the impact of that learning relative to strategic directions.

Building Capability

Perhaps more critical than *how* learning occurs, as represented by learning orientations,

or *why* learning occurs, as indicated by facilitating factors such as Climate of Openness, is *what* gets learned. Organizations that learn to design or implement strategies that are misaligned with organizational demands or missions serve no institutional purpose (even though such action may benefit some stakeholders with a vested interest in the status quo). Likewise, organizations may engage in dysfunctional or superstitious learning whereby biases and subjective judgments override experience or objective realities.²⁷

For organizations to learn strategically, learning resources and processes need to be directed toward the attainment of the organization's mission and strategy for achieving it. The military issues a variety of strategy documents including the National Military Strategy, National Defense Strategy, and Quadrennial Defense Review. Often, the implications of these strategies for force structure are clear. What is not explicit is the

organizational learning gets to the capacity of the Army as an institution and its ability as a social system to learn from experience

set of skills, competencies, and knowledge the military needs to implement its strategies. Understanding an organization's learning profile provides a guide to the most effective way such competencies can be learned.

The U.S. Army is an institution whose competence centers around the learning of its officers from their enrollment in its war colleges to participation in after-action reviews. Men and women learn in various ways: by reading books, interacting with peers, and listening to lectures. Organizational learning gets to the capacity of the Army as an institution and its ability as a social system to learn from experience.

Since Margaret Wheatley first posed the question about the Army becoming a learning organization, research has suggested that while the question is provocative, it is not the right one to ask. Several Army publications have since implicitly considered the question by focusing primarily on normative models.²⁸ Instead of seeing the learning organization concept from a normative, one-way-fits-all perspective, a more generative, systems approach respects the idiosyncratic nature of all institutions while acknowledging

that learning processes are embedded in all organizations.

By understanding and utilizing how the Army learns, we can more readily promote new ways of combating our foes. For example, if our military and political leaders ordain that the Army learn counterinsurgency, then our Army leaders need to know what learning approaches can best make that happen. A formal dissemination approach might be as simple as printing up a lot of counterinsurgency manuals and passing them out among the troops. A more informal style could utilize online social networks and blogs.

The Army is not and will never be one monolithic learning organization. However, if learning advocates take an integrated approach, they will recognize the complexity of the Army in its portfolio of learning orientations and practices. An important key is how the elements in the portfolio complement one another and how they enable our defense establishment to maintain security in times that are forever evolving. **JFQ**

NOTES

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¹⁹ Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge: Harvard University Press, 1957), 7–17.

²⁰ Marilyn Darling, Charles Parry, and Joseph Moore, "Learning in the Thick of It," *Harvard Business Review* (July–August 2005), 1–8.

²¹ Senge, *The Fifth Discipline*.

²² Garvin, "Building a Learning Organization."

²³ DiBella and Nevis.

²⁴ Chris Argyris, *Strategy, Change and Defensive Routines* (New York: Putman, 1985)

²⁵ Chris Argyris, "Teaching Smart People How to Learn," *Harvard Business Review* (May–June 1991), 99–109. See also Richard H. Kohn, "Tarnished Brass," *World Affairs* (Spring 2009), 79.

²⁶ Argyris, "Teaching Smart People How to Learn," 103.

²⁷ Barbara Levitt and James March, "Organizational Learning," *Annual Review of Sociology* 14 (1988), 319–340.

²⁸ See U.S. Army Training and Doctrine Command Pamphlet 525–3–7–01, *The U.S. Army Study of the Human Dimension of the Future* (Fort Monroe, VA: Department of the Army, 2008); Field Manual 6–22, *Army Leadership: Competent, Confident, and Agile* (Washington, DC: Department of the Army, 2006); Stephen J. Gerras, *The Army as a Learning Organization* (Carlisle, PA: U.S. Army War College, 2002).